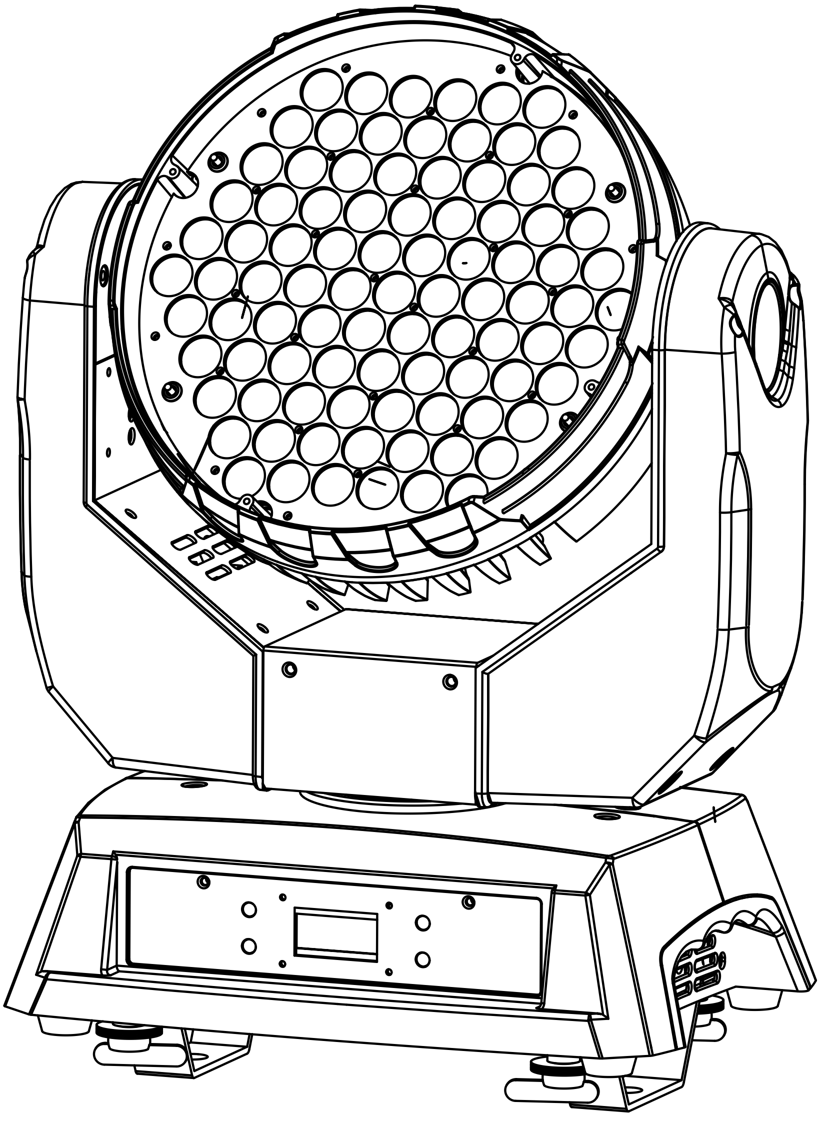
BT-91L3 ZOOM



ENGLISH

Operation Manual

CE

BRITEQ®
LIGHT RESEARCH

Version: 1.0

TABLE OF CONTENTS

PART 1 PRODUCT SPECIFICATIONS..1.

1.1--PRODUCT SPECIFICATIONS..1.

1.2--DIMENSIONS...2.

1.3--PRODUCT FEATURES...2.

1.4--SAFETY WARNING...3.

PART 2 INSTALLATION..4.

2.1--MOUNTING...4.

2.2--SETTING UP...5.

2.3--FUSE REPLACEMENT...5.

PART 3 DISPLAY PANEL OPERATION..6.

3.1--BASIC..6.

3.2--MENU...7.

3.3--INTRO..8.

3.4--INVERT...8.

3.5--RANGE..9.

3.6--SPECIAL..9.

3.7--EDIT...9.

3.8--EXTRA...11.

3.9--CALIB...11.

3.10--DEFAULT..12.

PART 4 USING DMX512 CONTROLLER......................................13.

4.1--CHANNEL ASSIGNMENT...13.

PART 5 APPENDIX...17.

5.1--MAINTENANCE..17.

1 PRODUCT SPECIFICATIONS

1.1 PRODUCT SPECIFICATIONS

Electrical
◆Voltage:AC100~240V，50/60Hz
◆Rated Power:310W

LED
◆LED:91PC(23R+23G+23B+22W)
◆Cooling:Forced air convection

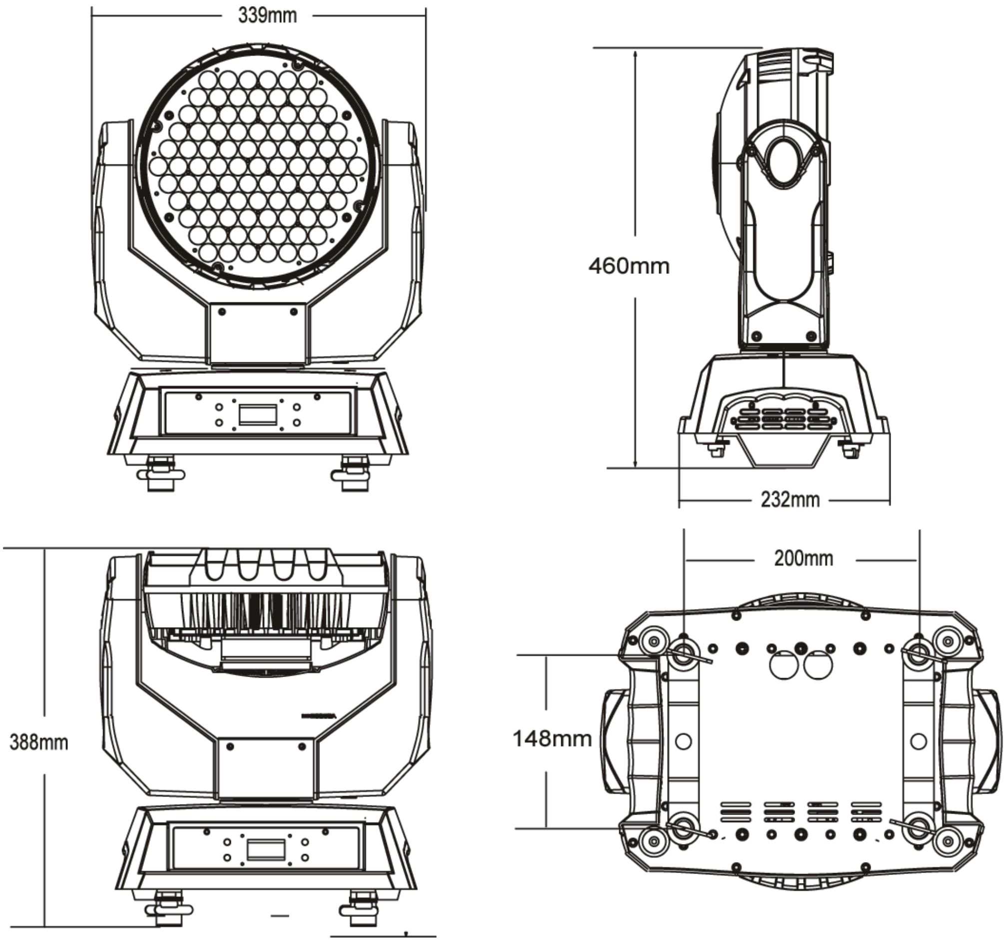
Function
◆Color mixing / Custom programs /
Strobe / White balance / RGB calibration / Dim 4 / Fan speed

Operation
◆Control mode:Master-Slave/Auto/Custom/ Sound
◆LCD display
◆DMX512 Chs:11CHS/ 15CHS

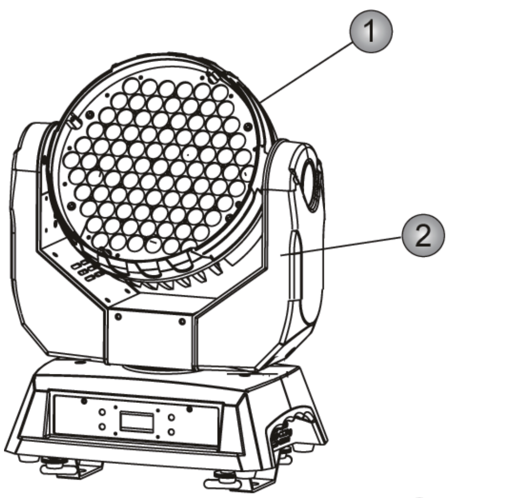
Pan/Tilt
◆Pan 540° Tilt 270°
◆Pan/Tilt speed
◆User-selectable Pan/Tilt ranges

◆ Size:339x252.5x361mm
◆ Weight:11kg

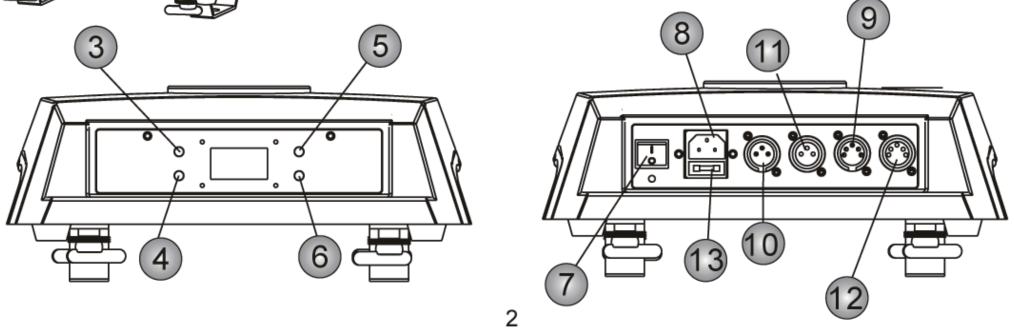
1.2 DIMENSIONS



1.3 PRODUCT FEATURES



No	ITEM
1	Head
2	Side arm
3	Menu
4	Enter
5	Down
6	Up
7	Switch
8	Power input
9	DMX 5-PIN signal input
10	DMX 3-PIN signal input
11	DMX 3-PIN signal output
12	DMX 5-PIN signal output
13	Fuse



1.5 SAFETY WARNING

IMPORTANT

【ALWAYS READ THE USER MANUAL BEFORE OPERATION. 】
【PLEASE CONFIRM THAT THE POWER SUPPLY STATED ON THE PRODUCT IS THE SAME AS THE MAINS POWER SUPPLY IN YOUR AREA.】

● This product must be installed by a qualified professional.
● Always operate the equipment as described in the user manual.
● A minimum distance of 0.5m must be maintained between the equipment and combustible surface.
● The product must always be placed in a well ventilated area.
● Always make sure that the equipment is installed securely.
● DO NOT stand close to the equipment and stare directly into the LED light source.
● Always disconnect the power supply before attempting and maintenance.
● Always make sure that the supporting structure is solid and can support the combined weight of the products.
● The earth wire must always be connected to the ground.
● Do not touch the power cables if your hands are wet.

ATTENTION

⚠ ATTENTION ⚠

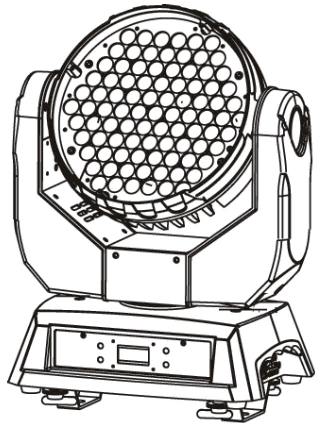
● This product left the place of manufacture in perfect condition. In order to maintain this condition and for safe operation, the user must always follow the instructions and safety warnings described in this user manual.
● Avoid shaking or strong impacts to any part of the equipment.
● Make sure that all parts of the equipment are kept clean and free of dust.
● Always make sure that the power connections are connected correct and secure.
● If there is any malfunction of the equipment, contact your distributor immediately.
● When transferring the product, it is advisable to use the original packaging in which the product left the factory.
● Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
● The lamp (LED) shall be changed if it has become damaged or thermally deformed.

2 INSTALLATION

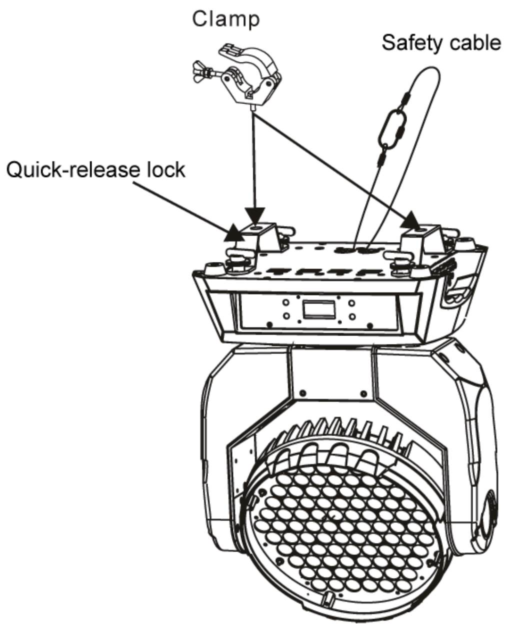
2.1 MOUNTING

The LED fixture can be operated in any position at any angle. When mounted on a flat surface, the surface must be strong enough to support 10 times the weight of the fixture and stable so that the will be no damage caused to the fixture or surrounding people or objects because of movements of the fixture on the surface.

When the unit is mounted in a hanging position, the fixture is attached using the mounting brackets and a standard truss clamp or other clamping device. The mounting brackets supplied are mounted using quick-release locks allowing simple mounting or removal.



UPRIGHT



HANGING

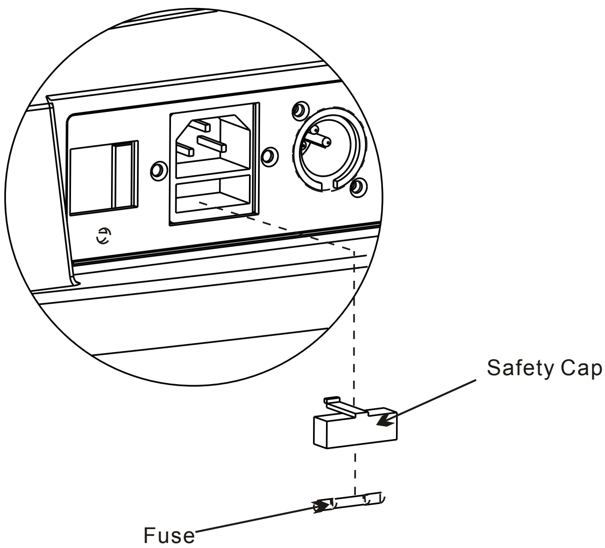
IMPORTANT SAFETY NOTE!!
Always use a safety cable when installing this unit!!
Be sure that the safety cable is connected to a solid load-bearing structure.

2.2 SETTING UP (STAND ALONE)

The LED fixture can be used as a stand alone unit. The stand alone functions AUTO 1, AUTO 2 and CUSTOM can be activated without the need to connect to any controller or connecting to any other equipment. Simply, access the <operation> menu from the DISPLAY and select the target program to activate.

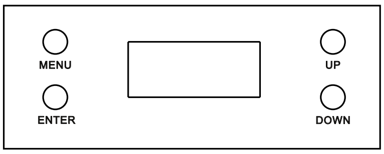
2.3 FUSE REPLACEMENT

- Remove the safety cap by a screwdriver.
- Fetch the old fuse from safety cap.
- Install a new fuse.
- Install the safety cap.



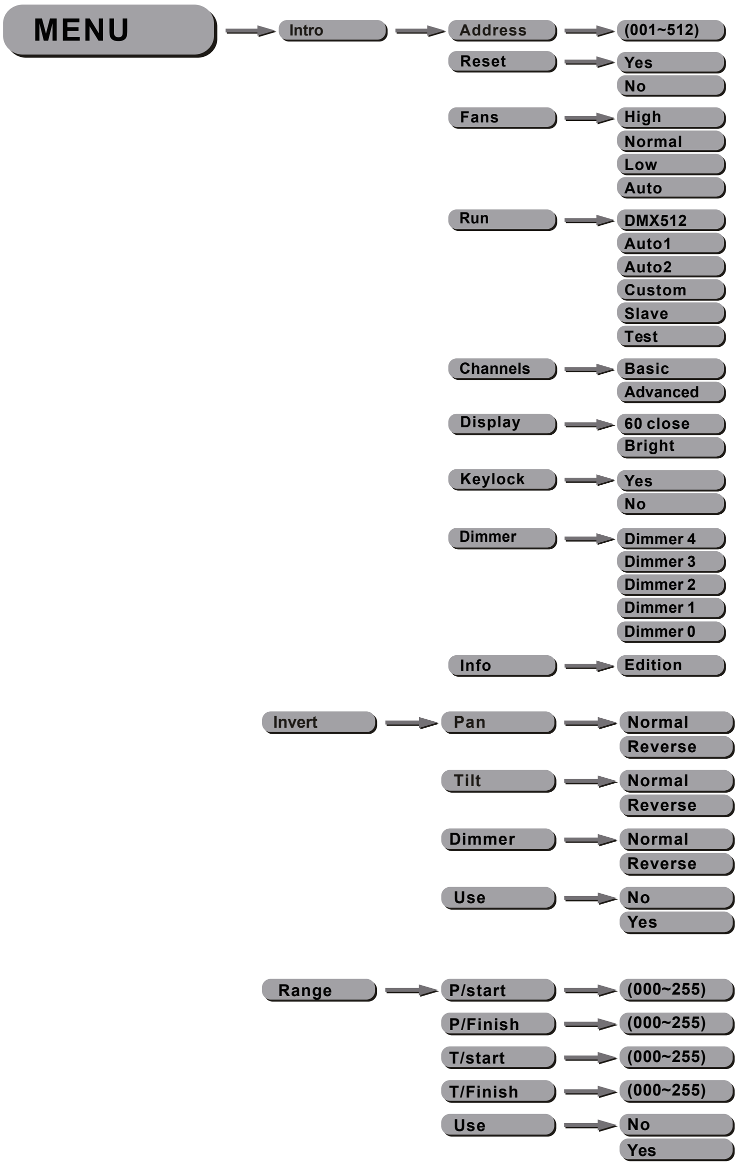
3 DISPLAY PANEL OPERATION

3.1 BASIC

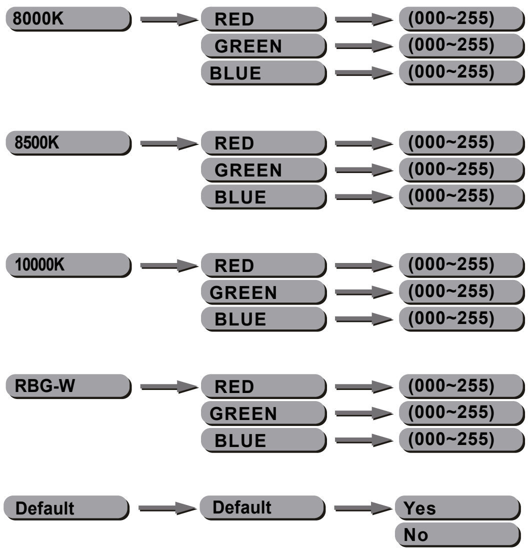


【 **MENU** 】 Scroll through the main menu or exit from the current sub-menu
【**ENTER**】 Enter the currently selected menu or confirm the current function value
【 **DOWN**】 Scroll 'DOWN' through the menu list or decrease the value of the current function
【 **UP** 】 Scroll 'UP' through the menu list or increase the value of the Current function

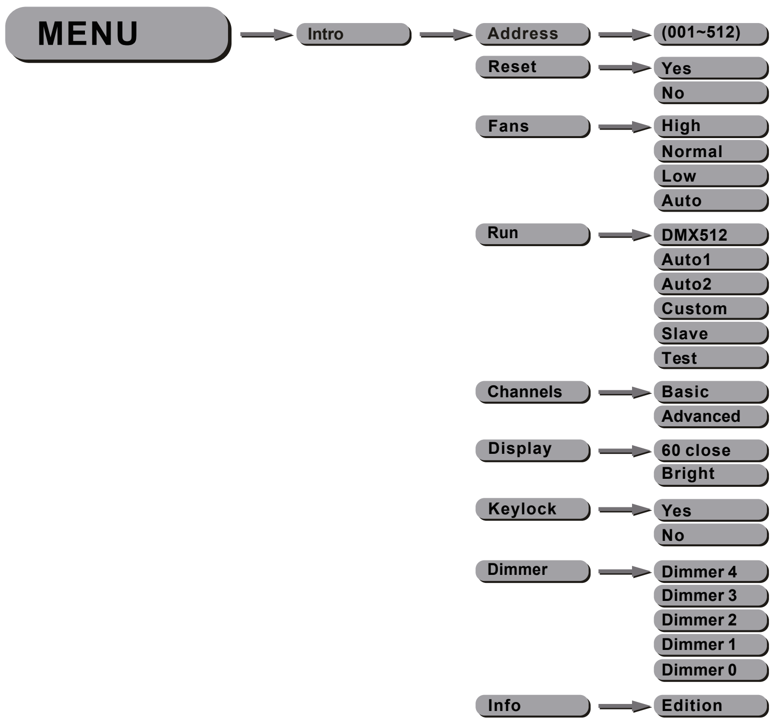
3.2 MENU



- Special
  - BlackDelay → No / Yes
  - Reset → DMX / System
  - Power → Normal / High
  - Color → Uc / Rgbtow / Off
  - Fan → DMX / System
- Edit
  - Step → (000~255)
  - Pan → (000~255)
  - Tilt → (000~255)
  - Speed → (000~255)
  - Red → (000~255)
  - Green → (000~255)
  - Blue → (000~255)
  - White → (000~255)
  - Dimmer → (000~255)
  - Strobe → (000~255)
  - Zoom → (000~255)
  - Dimspeed → (000~255)
  - Time → (000~255)
  - Use → No / Yes
- Extra
  - Password → 0000
- Calib
  - 3200K
    - RED → (000~255)
    - GREEN → (000~255)
    - BLUE → (000~255)
  - 3400K
    - RED → (000~255)
    - GREEN → (000~255)
    - BLUE → (000~255)
  - 4200K
    - RED → (000~255)
    - GREEN → (000~255)
    - BLUE → (000~255)
  - 4900K
    - RED → (000~255)
    - GREEN → (000~255)
    - BLUE → (000~255)
  - 5600K
    - RED → (000~255)
    - GREEN → (000~255)
    - BLUE → (000~255)
  - 5900K
    - 8.6 RED → (000~255)
    - 8.6 GREEN → (000~255)
    - 8.6 BLUE → (000~255)
  - 6500K
    - RED → (000~255)
    - GREEN → (000~255)
    - BLUE → (000~255)
  - 7200K
    - RED → (000~255)
    - GREEN → (000~255)
    - BLUE → (000~255)



3.3 INTRO



- 【Address】Enter **【*Address*】** to set the DMX Address, which is from (001-512)
- 【 Reset】In order to rest custom modest to default, select **【*Reset*】**
- 【 Fans】Enter **【*Fans*】** to select the working mode of fan: **【*High*】** is for fast; **【*Normal*】** is for normal; **【*Low*】** is for slow ; **【*Auto*】** is for Auto
- 【Run】 Enter **【*Run*】** to select the operation mode: **【*DMAX512*】**; **【*Auto1*】**; **【*Auto2*】**; **【*Custom*】**; **【*Test*】**; **【*Slave*】**

◆【 Channels】Enter 【***Channels***】 to select the DMX channel modes:【***Basic***】; 【***Advanced***】

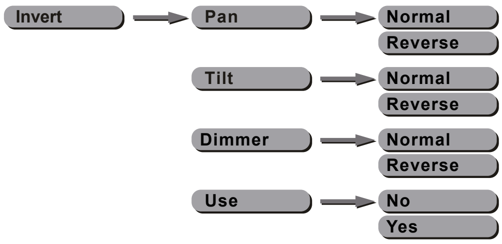
◆【Display】Enter【 ***Display***】 to select the lighting time of the LCD display panel.

◆【 Keylock】Enter the【***Keylock***】mode to select whether the access password is on or off.

◆【 Dimmer】Enter 【***Dimmer***】 to select dimmer mode and dimmer speed. When DIMMER is set to 【***Off***】, then RGBW and MASTER DIMMER are linear. The Dim 1/2/3/4 are speed modes of the non linear dimmer ,【***Dim1***】 is the faster, while ***Dim4***】 is the slowest.
The factory default setting is 【***Dim4***】***.***

◆ Enter【 ***Info***】 to see the version of the software.

3.4 INVERT

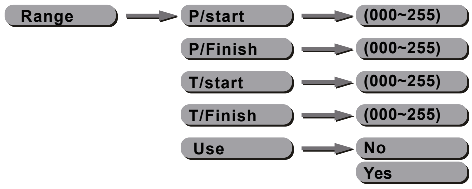


【 ***Invert***】

● Select【 ***Pan***】/【 ***Tilt***】/【 ***Dimmer***】to set【***Normal***】 or【***Reverse***】

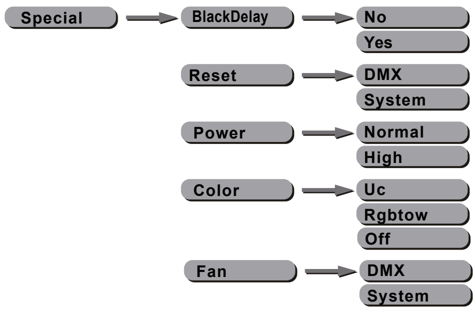
● Enter【 ***Use***】 and set【***Yes***】 to run the new setting

3.5 RANGE



- 【***P/start***】Set pan start value 【***000~255***】
- 【***P/Finish***】Set pan finish value 【***000~255***】
- 【***T/start***】Set Tilt start value 【***000~255***】
- 【***T/Finish***】Set Tilt finish value 【***000~255***】
- 【 ***Use***】Enter【 ***Use***】 and select【***Yes***】to open the operation of X/Y angle

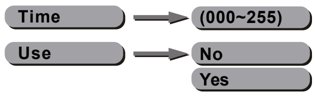
3.6 SPECIAL



- 【BlackDelay】Enter【***BlackDelay***】 to choose 【***No***】 without delay or 【***Yes***】 3seconds delay
- 【 Reset】Enter【***Reset***】 to choose【***DMX***】 DMX control reset or 【***System***】 DMX cannot control reset
- 【Power】Enter 【***Power***】 to choose the power as NORMAL or HIGH.
- 【Color】 【***COLOR***】 is for activate/unactivate the color calibration functions.
- 【 Fan】Choose【***DMX***】DMX to control fan or 【***System***】 DMX cannot control fan

3.7 EDIT





【 *Edit* 】

- Enter the【 ***Edit*** 】mode to edit the custom programs by adjusting the value of【***Step***】,【***Pan***】,【***Tilt***】,【***Speed***】,【***Color***】,【***Gobo***】,【***Gobo.rot***】,【***Prism***】,【***Dimmer***】,【***Strobe***】,【 ***Time***】
- Enter【 ***Use***】 and select【***Yes***】 to run the steps user need.

Note: if user want to circulate the created steps, please set the last step 's【***Time***】 as 0

For example, there are 3 steps, the setting should be like belowed:

Step 1 【***Time***】 = 4 【 ***Use***】 = Yes
Step 2 【***Time***】 = 5 【 ***Use***】 = Yes
Step 3 【***Time***】 = 0 【 ***Use***】 = Yes

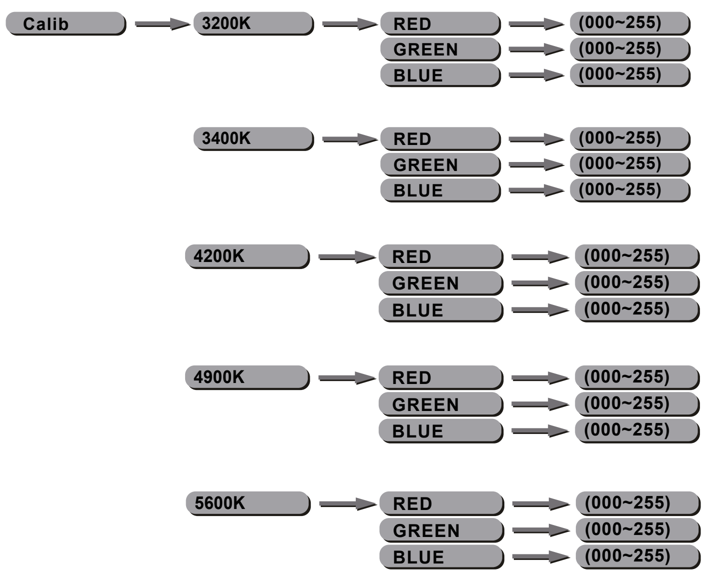
3.8 EXTRA

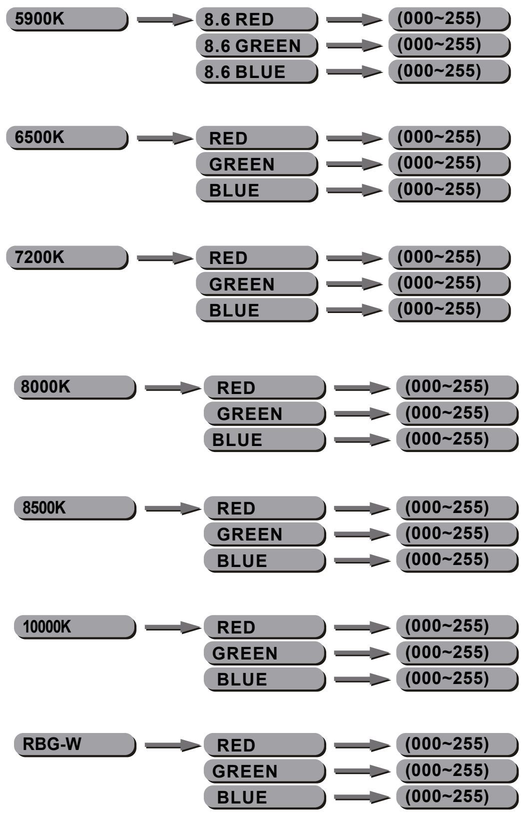


◆ When the user enter 【 password】and input the correct password, the hidden menu 【*Cablid*】,【*default*】 will appear on display panel, and the user is able to reset the 【*DEFAULT*】values of all functions.

The default access code is UP + DOWN + UP + DOWN..

3.9 CALIB





【 ***Calib***】

- Enter the【***Calib***】to select white color of different color temperature.
- There are 11 pre-programmed White colors plus RGB TO WHITE and can be edited by using【***Red***】,【***Green***】&【***Blue***】.

3.10 DEFAULT



【 ***Default***】

◆ This functions will reset all setting to the original factory setting

4 USING A DMX512 CONTROLLER

4.1 CHANNEL ASSIGNMENT

● Note: This product have two DMX512 channel configuration: 【***ADVANCED***】 and 【***BASIC***】.

ADVANCED

CHANNEL	VALUE	FUNCTION
1	000~255	**PAN** Clockwise rotate 0~540°
2	000~255	**PAN FINE** Fine control of pan movement 0~3°
3	000~255	**TILT** Anti-clockwise rotate 0~270°
4	000~255	**TILT FINE** Fine control of tilt movement 0~3°
5	000~255	**PAN/TILT SPEED** From fast to slow
6	000~255	**RED**
7	000~255	**GREEN**
8	000~255	**BLUE**
9	000~255	**WHITE**
10		**COLOR/WHITE MACRO**
	000~005	NO FUCNTION
	006~010	FULL POWER
	011~030	RED 100% / GREEN UP / BLUE 0%
	031~050	RED DOWN / GREEN 100% / BLUE 0%
	051~070	RED 0% / GREEN 100% / BLUE UP
	071~090	RED 0% / GREEN DOWN / BLUE 100%
	091~110	RED UP / GREEN 0% / BLUE 100%
	111~130	RED 100% / GREEN 0% / BLUE DOWN
	131~150	RED 100% / GREEN UP / BLUE UP
	151~170	RED DOWN / GREEN DOWN / BLUE 100%
	171~200	RED 100% / GREEN 100% / BLUE 100% /WHITE 100%
	201~205	WHITE1：3200K
	206~210	WHITE2：3400K
	211~215	WHITE3：4200K
	216~220	WHITE4：4900K
	221~225	WHITE5：5600K
	226~230	WHITE6：5900K
	231~235	WHITE7：6500K
	236~240	WHITE8：7200K
	241~245	WHITE9：8000K
	246~250	WHITE10：8500K
	251~255	WHITE11：10000K

CHANNEL	VALUE	FUNCTION
11	000~255	**DIMMER**
12		**STROBE**
	000~009	NO function
	010~255	1~20Hz
13	000~255	**ZOOM**
14		**DIMMER SPEED**
	000~009	PRESET DIMMER SPEED FROMDISPLAY MENU
	010~029	LINEAR DIMMER
	030~069	NON LINEAR DIMMER 1 (fastest)
	070~129	NON LINEAR DIMMER 2
	130~189	NON LINEAR DIMMER 3
	190~255	NON LINEAR DIMMER 4 (slowest)
15		**CONTROL**
	000~019	NO FUNCTION
	020~039	PAN/TILT BLACK ACTIVATED
	040~059	PAN/TILT BLACK DEACTIVATED
	060~079	FAN AUTO
	080~099	FAN SLOW
	100~119	FAN NORMAL
	120~139	FAN FAST
	140~149	AUTO1 (ACTIVATED AFTER 3 SECS)
	150~159	AUTO2 (ACTIVATED AFTER 3 SECS)
	160~169	TEST (ACTIVATED AFTER 3 SECS)
	170~179	CUSTOM (ACTIVATED AFTER 3 SECS)
	180~199	NO FUNCTION
	200~219	RESET (ACTIVATED AFTER 3 SECS)
	220~255	NO FUNCTION

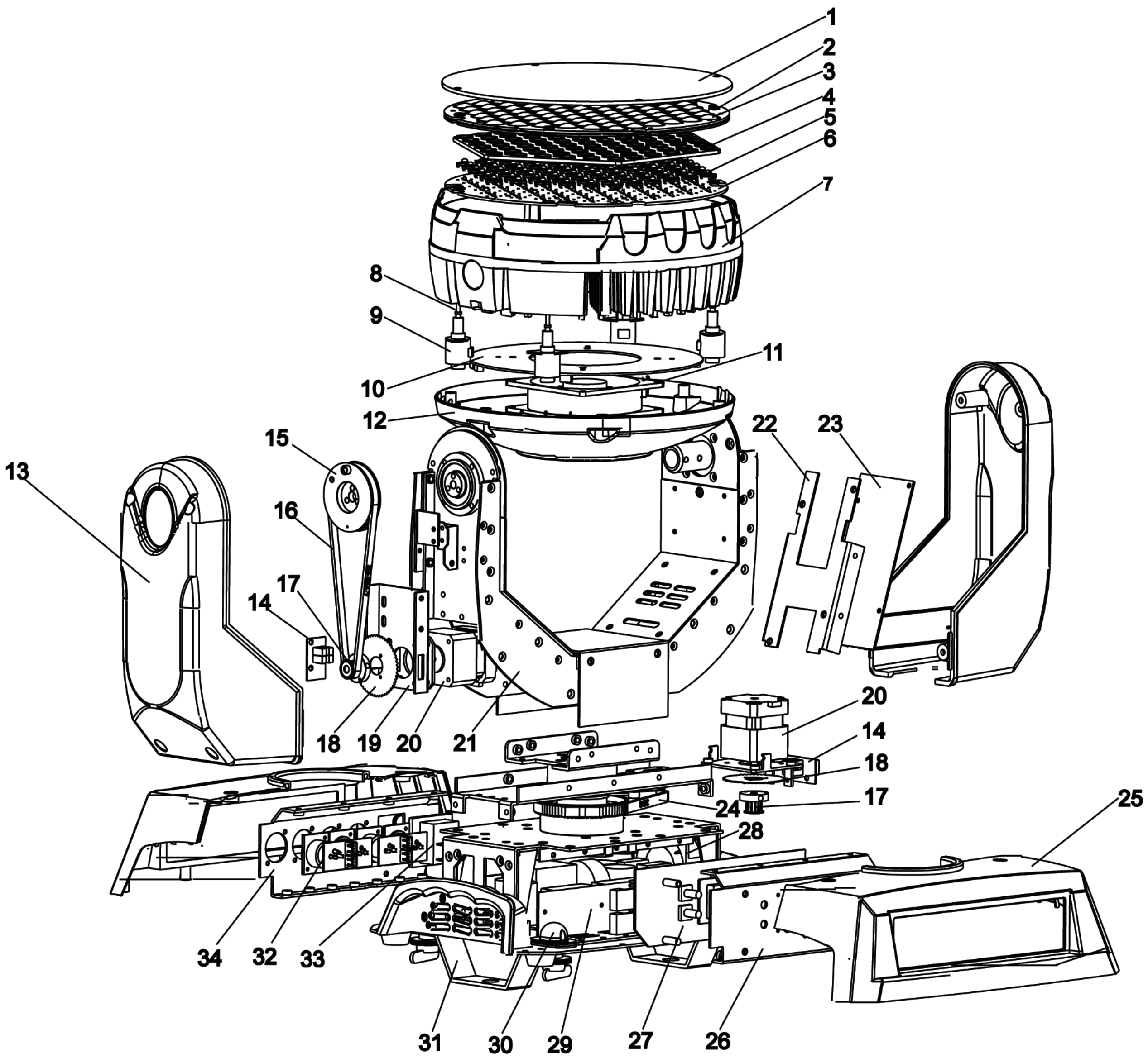
BASIC

CHANNEL	VALUE	FUNCTION
1	000~255	**PAN** Clockwise rotate 0~540°
2	000~255	**TILT** Anti-clockwise rotate 0~270°
3	000~255	**RED**
4	000~255	**GREEN**
5	000~255	**BLUE**
6	000~255	**WHITE**
7	 000~005 006~010 011~030 031~050 051~070 071~090 091~110 111~130 131~150 151~170 171~200 201~205 206~210 211~215 216~220 221~225 226~230 231~235 236~240 241~245 246~250 251~255	**COLOR/WHITE MACRO** NO FUCNTION FULL POWER RED 100% / GREEN UP / BLUE 0% RED DOWN / GREEN 100% / BLUE 0% RED 0% / GREEN 100% / BLUE UP RED 0% / GREEN DOWN / BLUE 100% RED UP / GREEN 0% / BLUE 100% RED 100% / GREEN 0% / BLUE DOWN RED 100% / GREEN UP / BLUE UP RED DOWN / GREEN DOWN / BLUE 100% RED 100% / GREEN 100% / BLUE 100% /WHITE 100% WHITE1：3200K WHITE2：3400K WHITE3：4200K WHITE4：4900K WHITE5：5600K WHITE6：5900K WHITE7：6500K WHITE8：7200K WHITE9：8000K WHITE10：8500K WHITE11：10000K

CHANNEL	VALUE	FUNCTION
8	000~255	**DIMMER**
9		**STROBE**
	000~009	NO FUNCTION
	010~255	1~20HZ
10	000~255	**ZOOM**
11		**CONTROL**
	000~019	NO FUNCTION
	020~039	PAN/TILT BLACK ACTIVATED
	040~059	PAN/TILT BLACK DEACTIVATED
	060~079	FAN AUTO
	080~099	FAN SLOW
	100~119	FAN NORMAL
	120~139	FAN FAST
	140~149	AUTO1 (ACTIVATED AFTER 3 SECS)
	150~159	AUTO2 (ACTIVATED AFTER 3 SECS)
	160~169	TEST (ACTIVATED AFTER 3 SECS)
	170~179	CUSTOM (ACTIVATED AFTER 3 SECS)
	180~199	NO FUNCTION
	200~219	RESET (ACTIVATED AFTER 3 SECS)
	220~255	NO FUNCTION

5 APPENDIX

5.1 MAINTENANCE



No	ITEM
1	Anti-dust plate
2	Anti-vibrate seal
3	Zoom lens
4	Capture lens plate
5	Capture lens
6	LED PCB
7	Head structure
8	Adjust pole
9	Motor
10	Driver PCB
11	Fan
12	Head cover

No	ITEM
13	Arm cover
14	Arm board
15	Y-large gear
16	Tilt belt
17	Y-small gear
18	Optical wheel
19	Y-motor support
20	Motor
21	U-frame
22	Driver support
23	Driver PCB
24	Pan belt

No	ITEM
25	Base cover
26	Display support
27	Display PCB
28	Fan
29	Power supply
30	Quick-lock female
31	Hanging bracket
32	Connection board
33	IEC power socket
34	XLR socket support

WWW.BRITEQ-LIGHTING.COM